

AMENDMENTS TO THE DRAWINGS

The Examiner objects to the drawing that was submitted in response to the previous Office Action. The Examiner states that the phantom line representing the inclination of the anchor bolt is shown as extending into the curable material (element 8), which is not described in the application as receiving the bolt. A corrected drawing sheet has been submitted.

REMARKS

Claims 1-12 remain pending in the application. Favorable reconsideration of the application is respectfully requested.

I. OBJECTION TO THE DRAWINGS

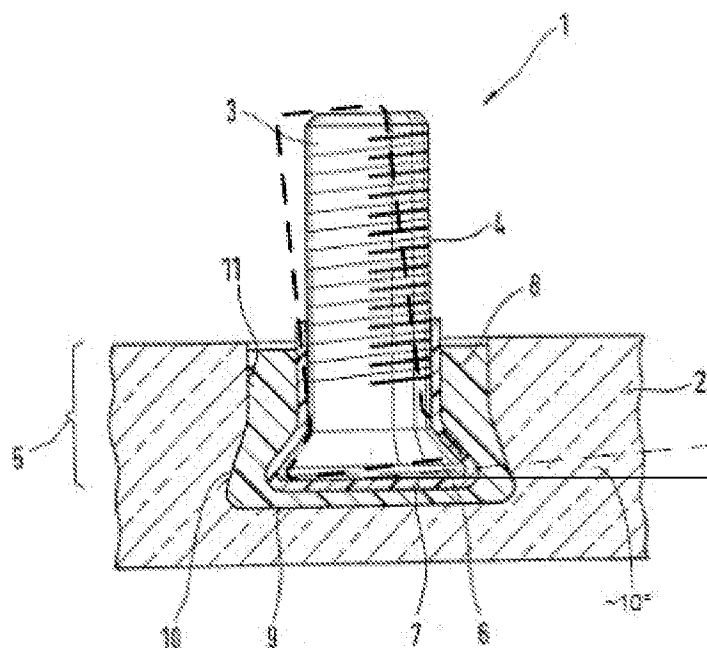
The Examiner objects to the drawing that was submitted in response to the previous Office Action. The Examiner states that the phantom line representing the inclination of the anchor bolt is shown as extending into the curable material (element 8), which is not described in the application as receiving the bolt. Pursuant to the Examiner's comments, a corrected drawing sheet has been submitted in which the phantom line does not extend into the curable material (element 8), but rather remains within the boundary of the resilient material (element 7). Accordingly, the objection to the drawings should be withdrawn.

II. REJECTION OF CLAIMS UNDER 35 USC §§ 102(b) and 103(a)

Claims 1-8 and 10-12 stand rejected pursuant to 35 U.S.C. § 102(e), or alternatively 35 U.S.C. § 103(a), as being anticipated by or obvious over Oberhofer et al., U.S. Patent No. 6,735,921 (Oberhofer). Claim 10 also stands rejected pursuant to 35 U.S.C. § 103(a) as being obvious over Oberhofer in view of Mallon, U.S. Patent No. 846,493 (Mallon). Applicants traverse the rejections for at least the following reasons.

A. The Arrangement of Oberhofer Lacks An Undercut Portion In a Panel

As further explained below, the fixing device of Oberhofer is not fixedly secured within an undercut portion of a panel, as claimed. Claim 1 is directed to a fixing device for producing an anchoring in an ***undercut portion of a panel***. Claim 5 recites a fixing arrangement including a panel having an ***undercut portion*** and a comparable fixing device. The claimed invention addresses problems resulting from the very limited flexibility of the anchor bolt with respect to an undercut portion by means of an anchor bolt surrounded in the region of the anchoring zone with a covering of resilient plastics material. The sole figure in the application is reproduced below for convenience.

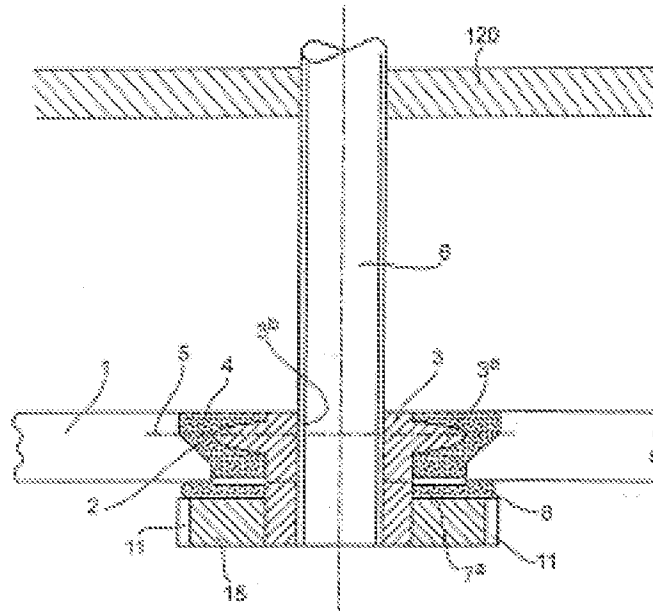


Current Application

Referring to the figure, the fixing element has an anchoring zone 5 having a resilient covering 7 surround by a cured composition 8. The anchoring zone is secured within a drilled undercut hole 9 in the panel, the undercut hole being shaped at wall 11 to prevent detachment or pulling of the fixing element from the panel. As a result, the fixing element in the undercut portion exhibits resilience in all directions, and the resilience enables inclination of the anchor bolt of about 10 degrees without detachment. (See Application at page 2, line 30 to page 3, lines 10.)

The Examiner relies principally on Fig. 14 of Oberhofer (which is derived from Fig. 1A). Fig. 14 of Oberhofer is reproduced below for convenience.

FIG. 14



Oberhofer

The Examiner states that Oberhofer discloses a glass panel 1 that includes an undercut hole 2. A fixing device includes an anchor bolt having a fixing means 6 and an anchoring zone 3 that widens in cross-section in the direction of insertion. A resilient material 4 permits inclination of the anchoring bolt. The Examiner recognizes that Oberhofer does not specifically disclose an inclination of ten degrees, but concludes that such an inclination amount would be either inherent from the structures or obvious to one of ordinary skill in the art. Applicants disagree with the Examiner's application of Oberhofer.

The fixing device of Oberhofer does not secure the glass panel via **an undercut hole** in the panel that prevents detachment. Element 2 is not an undercut hole because it narrows, rather than widens, as it extends through the glass away from the wall structure 120. Indeed, element 2 of Oberhofer is configured oppositely to the undercut hole 9 in Applicants' invention (see the above figure).

The panel in Oberhofer is configured in this manner because the fixing device is designed to secure “glass plates [that] have borings or holes ***cut all the way through.***” (E.g., col. 2, lines 30-31.) As seen in the above figure, therefore, in the device of Oberhofer the resilient material 4 extends through the entire glass panel. In such a configuration, the bolt 6 would be subject to pulling through the glass panel. To avoid this, additional structures, such as the nut 15 which screws onto the annular body 3, are provided to secure the bolt in the glass panel. (See, e.g., Oberhofer at col. 7, lines 5-20.) As seen in the above figure, such securing structures protrude through the glass panel, which would be less desirable in look and function than having a smooth outer surface of the panel.

In contrast, in the device of the present invention, the resilient material is wholly within the undercut portion 9, the shape of which prevents the anchoring bolt from pulling out. Oberhofer, therefore, does not anticipate the claimed invention because Oberhofer does not disclose a fixing device that is used in conjunction with an undercut portion of a glass panel.

Although not specifically referenced by the Examiner, Applicants draw the Examiner’s attention to Figs. 7 and 8 of Oberhofer, which appear to be configured more similarly to the claimed invention. (See also Figs. 17 and 18 showing these embodiments when mounted to a wall structure 120.) These embodiments include an anchoring bolt that secures two panes of glass 1a and 1b, the glass panes being adhered to each other by a film or resin. Even in these embodiments, the resilient material 4 extends through the entire glass pane 1a. A cover plate 13 prevents the bolt from pushing out toward pane 1b, which could otherwise contact and possibly damage the film or resin layer and/or pane 1b. Thus, in contrast to the claimed invention, there is still an issue that the bolt may be pushed out from the bolt’s position in pane 1a. The cover plate 13 is required to prevent this occurrence. In contrast, in Applicants’ configuration such occurrence cannot occur because the undercut portion 9 does not extend through the entire panel.

Accordingly, Oberhofer does not anticipate claims 1-9 and 11-12, and the rejection of these claims.

B. Claim 10 Is Not Obvious Over Oberhofer In View of Mallon

Claim 10 recites that the fixing device is anchored in the undercut portion by a curable compound. The Examiner states that Mallon discloses the use of a curable compound to secure a fixing device (lines 65-69) and concludes that it would have been obvious to combine the fixing device of Oberhofer with Mallon's use of a curable compound to arrive at the invention of claim 10. Applicants disagree with this application of Mallon.

Initially, Mallon does not make up for the deficiencies of Oberhofer described above, and the Examiner does not indicate otherwise. Accordingly, claim 10 is patentable for at least the same reasons as the other claims.

In addition, one skilled in the art would not combine the teachings of Oberhofer and Mallon. Mallon discloses providing a hard compound surrounding the anchoring bolt to provide a secured fixation. Oberhofer discloses providing a resilient material surrounding the anchoring bolt to provide flexibility to permit some movement of the panel. Mallon and Oberhofer thus teach away from each other. One skilled in the art, therefore, would not combine the teachings of Mallon and Oberhofer.

Furthermore, a combination of Mallon and Oberhofer does not result in, disclose, or suggest the claimed invention. Essentially, such a combination would result in replacing the resilient material in Oberhofer with the hard compound of Mallon, insofar as both references teach a layer to be applied surrounding the anchoring bolt. There is no disclosure or suggestion in the references, whether viewed individually or in combination, to provide a resilient material around the bolt, and then **a second hard layer around the resilient material**, as recited in claim 10.

For at least these reasons, claim 10 is not obvious over Oberhofer in view of Mallon, and therefore the rejection of claim 10 should be withdrawn.

III. CONCLUSION

Accordingly, claims 1-12 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner consider that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988, reference number FISCP0101US.

Respectfully submitted,

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DATE: November 24, 2008

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